DOCUMENT RESUME

ED 259 134 CE 041 797

TITLE	Develop a Course of Study. Module A-8 of Category A--Program Planning, Development, and Evaluation. Professional Teacher Education Module Series. Second Edition.
INSTITUTION	Ohio State Univ., Columbus. National Center for Research in Vocational Education.
SPONS AGENCY	Department of Education, Washington, DC.
REPORT NO	ISBN-0-89606-182-5
PUB DATE	85
NOTE	49p.; For related documents, see ED 249 393 and ED 255 669.
AVAILABLE FROM	American Association for Vocational Instructional Materials, 120 Driftmier Engineering Center, University of Georgia, Athens, GA 30602.
PUB TYPE	Guides - Classroom Use - Materials (For Learner) (051)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Behavioral Objectives; Case Studies; Check Lists; *Competency Based Teacher Education; *Course Content; Course Objectives; *Course Organization; *Curriculum Development; Evaluation Criteria; Instructional Materials; Learning Activities; Learning Modules; Lesson Plans; Material Development; Postsecondary Education; Secondary Education; Self Evaluation (Individuals); *Teaching Methods; *Vocational Education; Vocational Education Teachers

ABSTRACT

This learning module is one in a series of 127 performance-based teacher education learning packages focusing upon professional competencies of vocational teachers. The module consists of three learning experiences designed to (1) help prospective teachers gain an understanding of the purposes and basic components of a course of study, (2) critique the performance of a teacher in a given case study in developing a course of study, and (3) develop a course of study in an actual teaching situation. Included in each learning experience are some or all of the following: an overview, an enabling objective, an instructional test, one or more learning activities, a self-check activity, and model answers to the feedback exercise. The final learning experience also includes a checklist of performance criteria. (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED259134

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Steve

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Develop a Course of Study

Second Edition

AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS
The University of Georgia
120 Driftmier Engineering Center / Athens GA 30602

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 KENNY ROAD · COLUMBUS, OHIO 43210

FOREWORD

This module is one of a series of 127 performance-based teacher education (PBTE) learning packages focusing upon specific professional competencies of vocational teachers. The competencies upon which these modules are based were identified and verified through research as being important to successful vocational teaching at both the secondary and postsecondary levels of instruction. The modules are suitable for the preparation of teachers and other occupational trainers in all occupational areas.

Each module provides learning experiences that integrate theory and application; each culminates with criterion-referenced assessment of the teacher's (instructor's, trainer's) performance of the specified competency. The materials are designed for use by teachers-in-training working individually or in groups under the direction and with the assistance of teacher educators or others acting as resource persons. Resource persons should be skilled in the teacher competencies being developed and should be thoroughly oriented to PBTE concepts and procedures before using these materials.

The design of the materials provides considerable flexibility for planning and conducting performance-based training programs for preservice and inservice teachers, as well as business-industry-labor trainers, to meet a wide variety of individual needs and interests. The materials are intended for use by universities and colleges, state departments of education, postsecondary institutions, local education agencies, and others responsible for the professional development of vocational teachers and other occupational trainers.

The PBTE curriculum packages in Categories A – J are products of a sustained research and development effort by the National Center's Program for Professional Development for Vocational Education. Many individuals, institutions, and agencies participated with the National Center and have made contributions to the systematic development, testing, revision, and refinement of these very significant training materials. Calvin J. Cotrell directed the vocational teacher competency research study upon which these modules are based and also directed the curriculum development effort from 1971 – 1972. Curtis R. Finch provided leadership for the program from 1972 – 1974. Over 40 teacher educators provided input in development of initial versions of the modules; over 2,000 teachers and 300 resource persons in 20 universities, colleges, and postsecondary institutions used the materials and provided feedback to the National Center for revisions and refinement.

Early versions of the materials were developed by the National Center in cooperation with the vocational teacher education faculties at Oregon State University and at the University of Missouri – Columbia. Preliminary testing of the materials was conducted at Oregon State University, Temple University, and the University of Missouri – Columbia.

Following preliminary testing, major revision of all materials was performed by National Center staff, with the assistance of numerous consultants and visiting scholars from throughout the country.

Advanced testing of the materials was carried out with assistance of the vocational teacher educators and students of Central Washington State College; Colorado State University; Ferris State College, Michigan; Florida State University; Holland College, P.E.I., Canada; Oklahoma State University; Rutgers University, New Jersey; State University College at Buffalo, New York; Temple University, Pennsylvania; University of Arizona; University of Michigan–Flint; University of Minnesota–Twin Cities; University of Nebraska–Lincoln; University of Northern Colorado; University of Pittsburgh, Pennsylvania; University of Tennessee; University of Vermont; and Utah State University.

The first published edition of the modules found widespread use nationwide and in many other countries of the world. User feedback from such extensive use, as well as the passage of time, called for the updating of the content, resources, and illustrations of the original materials. Furthermore, three new categories (K–M) have been added to the series, covering the areas of serving students with special/exceptional needs, improving students' basic and personal skills, and implementing competency-based education. This addition required the articulation of content among the original modules and those of the new categories.

Recognition is extended to the following individuals for their roles in the revision of the original materials: Lois G. Harrington, Catherine C. King-Fitch and Michael E. Wonacott, Program Associates, for revision of content and resources; Cheryl M. Lowry, Research Specialist, for illustration specifications; and Barbara Shea for art work. Special recognition is extended to the staff at AAVIM for their invaluable contributions to the quality of the final printed products, particularly to Donna Pritchett for module layout, design, and final art work, and to George W. Smith Jr. for supervision of the module production process.

Robert E. Taylor
Executive Director
The National Center for Research in Vocational Education

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 KENNY ROAD · COLUMBUS, OHIO 43210

The National Center for Research in Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research.
- Developing educational programs and products.
- Evaluating individual program needs and outcomes.
- Providing information for national planning and policy.
- Installing educational programs and products.
- Operating information systems and services.
- Conducting leadership development and training programs.

AAVIM
AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS
The National Institute for Instructional Materials
120 Driftmier Engineering Center
Athens, Georgia 30602

The American Association for Vocational Instructional Materials (AAVIM) is a nonprofit national institute.

The institute is a cooperative effort of universities, colleges and divisions of vocational and technical education in the United States and Canada to provide for excellence in instructional materials.

Direction is given by a representative from each of the states, provinces and territories. AAVIM also works closely with teacher organizations, government agencies and industry.

MODULE
A-8

Develop a Course of Study

Second Edition

Module A-8 of Category A—Program Planning, Development, and Evaluation
PROFESSIONAL TEACHER EDUCATION MODULE SERIES

The National Center for Research in Vocational Education
The Ohio State University

Key Program Staff:
James B. Hamilton, Program Director
Robert E. Norton, Associate Program Director
Glen E. Fardig, Specialist
Lois G. Harrington, Program Assistant
Karen M. Quinn, Program Assistant

Second Edition. Copyright © 1985 by The National Center for Research in Vocational Education, The Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210.

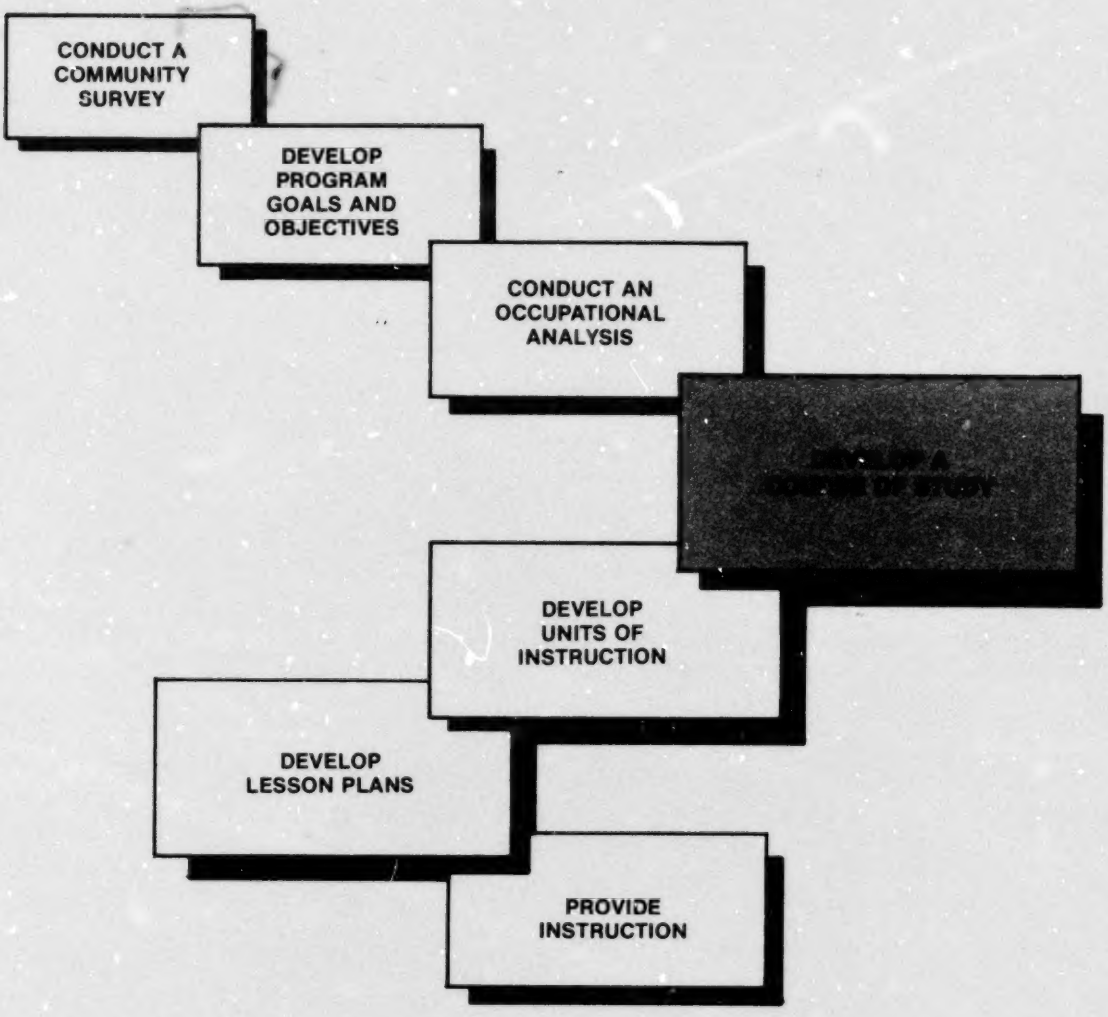
Copyright is claimed until full term. Thereafter all portions of this work covered by this copyright will be in the public domain.

This work was developed under a contract with the Department of Education. However, the content does not necessarily reflect the position or policy of that Agency, and no official endorsement of these materials should be inferred.

1985

ISBN 0-89606-182-5

Published and distributed by the American Association for Vocational Instructional Materials (AAVIM), 120 Driftmier Engineering Center, The University of Georgia, Athens, Georgia 30602, (404) 542-2586.



CONVENTIONAL CURRICULUM AND INSTRUCTIONAL DEVELOPMENT PROCESS

INTRODUCTION

Instruction in the various service areas of a vocational-technical program must reflect the rapid changes taking place in today's society. Students must be provided with occupationally related experiences that will help meet their needs and the special conditions and requirements of their career choices.

While a group of instructors will probably be responsible for identifying what an institution's total vocational-technical program will include, you, as an individual vocational teacher, will usually be expected to develop and update the courses of study to be used in the programs in your own occupational specialty. To develop and update the courses of study, you may be asked to perform one or more of the several operations identified in the diagram on p. 2.

A good vocational-technical course of study describes who is to be taught in the program; what is to be taught; how much time will be allotted to each instructional area; and what references, resources, tools, and equipment will be used. The course of study outlines and provides structure for the various courses to be offered and units of instruction to be developed and taught. In turn, the units of instruction become the basis for developing relevant lesson plans to guide the daily student learning process.

This module is designed to help you acquire the knowledge and develop the skills necessary to prepare and update courses of study in a conventional vocational-technical program. To gain skill in organizing the content for a competency-based education (CBE) program, which is typically self-paced and individualized rather than structured into separate, time-based courses of study, you should refer to Module K–2, *Organize the Content for a CBE Program.*

ABOUT THIS MODULE

Objectives

Terminal Objective: For an actual teaching situation, develop a course of study. Your performance will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 41–43 *(Learning Experience III)*.

Enabling Objectives:

1. After completing the required reading, demonstrate knowledge of the purposes and basic components of a course of study *(Learning Experience I)*.
2. After completing the required reading, critique the performance of a teacher in a given case study in developing a course of study *(Learning Experience II)*.

Resources

A list of the outside resources that supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references in your occupational specialty, and (3) to get assistance in setting up activities with peers or observations of skilled teachers, if necessary. Your resource person may also be contacted if you have any difficulty with directions or in assessing your progress at any time.

Learning Experience I

Optional

Courses of study (curriculum guides, competency outlines) in your service area that you can review.

Learning Experience II

Optional

A vocational teacher or curriculum specialist experienced in developing courses of study with whom you can consult.

Learning Experience III

Required

An actual teaching situation in which you can develop a course of study.

A resource person to assess your competency in developing a course of study.

General Information

For information about the general organization of each performance-based teacher education (PBTE) module, general procedures for its use, and terminology that is common to all the modules, see About Using the National Center's PBTE Modules on the inside back cover. For more in-depth information on how to use the modules in teacher/trainer education programs, you may wish to refer to three related documents:

The *Student Guide to Using Performance-Based Teacher Education Materials* is designed to help orient preservice and inservice teachers and occupational trainers to PBTE in general and to the PBTE materials.

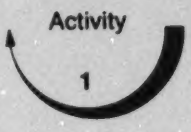
The *Resource Person Guide to Using Performance-Based Teacher Education Materials* can help prospective resource persons to guide and assist preservice and inservice teachers and occupational trainers in the development of professional teaching competencies through use of the PBTE modules. It also includes lists of all the module competencies, as well as a listing of the supplementary resources and the addresses where they can be obtained.

The *Guide to the Implementation of Performance-Based Teacher Education* is designed to help those who will administer the PBTE program. It contains answers to implementation questions, possible solutions to problems, and alternative courses of action.

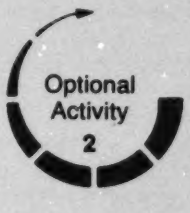
Learning Experience I

OVERVIEW

After completing the required reading, demonstrate knowledge of the purposes and basic components of a course of study.



You will be reading the information sheet, The Course of Study, pp. 6–10.



You may wish to locate and review courses of study (curriculum guides, competency outlines) in your service area.

You will be demonstrating knowledge of the purposes and basic components of a course of study by completing the Self-Check, pp. 11–13.

You will be evaluating your competency by comparing your completed Self-Check with the Model Answers, pp. 15–16.

Activity 1

Before you can begin to develop a course of study, it is important to know why this is such a critical document and what, in general, it should include. For information on the purposes of developing a written course of study for a vocational-technical program and the essential elements of such a document, read the following information sheet.

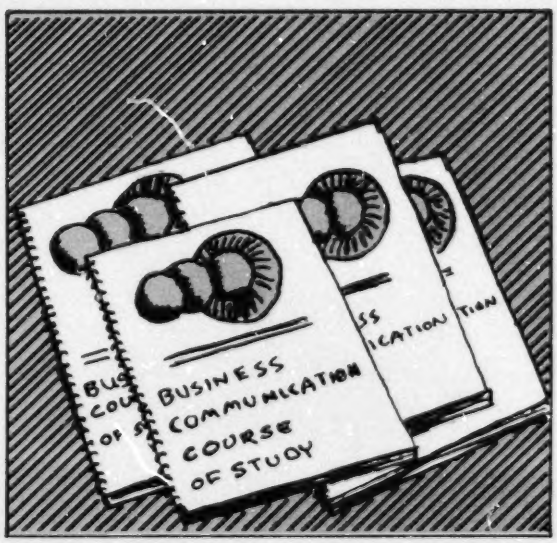
THE COURSE OF STUDY

A course of study is a vital guide to instruction in a vocational-technical program, yet it is sometimes almost invisible. You are not likely to see it lying on the teacher's desk, you will not find it displayed on the bulletin board, nor does the instructor hold it in his/her hand during a lesson.

Yet this guide is the foundation for just about everything that goes on in a conventional instructional program. The course of study is in fact an official guide, or outline, that describes in broad terms a particular program within a vocational service area (e.g., the data processing program in the business occupations service area). It is then used by teachers as a base on which to build units of instruction, classroom lessons, student laboratory activities, assignments, and final examinations.

You might not be able to instantly recognize a course of study if you did, by chance, find one out in the open in a school. Courses of study may be prepared in a variety of sizes, shapes, and formats, depending on the environment in which they were conceived and developed. In various educational localities, they are even called by different names, such as *competency outline* or *curriculum guide*.

A course of study may be very thin and spare—virtually nothing but a simple outline of the topics or occupational tasks (or skills or competencies) to be covered in the program. Or the course of study may be a hefty volume with great lists of tasks, scores of objectives, detailed instructional plans, evaluation instruments, instructional aids, project plans, teaching steps, and reams of references.



Most courses of study will fall somewhere between these two extremes, containing the **essential** information about the general objectives and content of the program. It also usually breaks the program down into separate courses of shorter duration (e.g., one semester).

There are few generally accepted attributes of a course of study because it often is developed to serve particularly defined needs. Each vocational service area tends to organize its courses of study to best suit its own ways of presenting instruction. Schools or colleges may develop their own format in order to make the courses of study more comprehensible to their teachers and supervisors.

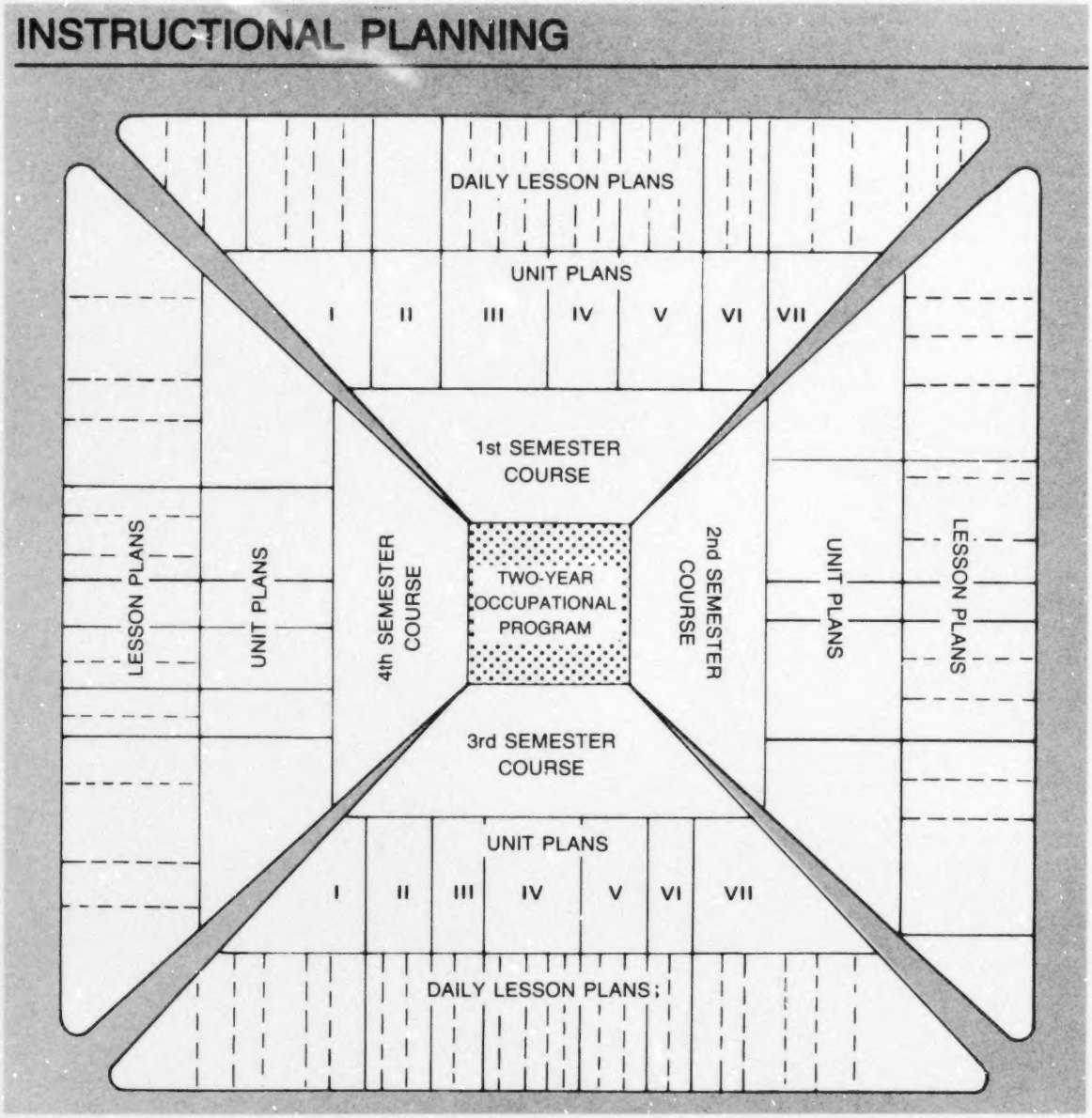
Regardless of the format, however, a course of study usually deals only in broad outlines. Detailed instructional planning is left to those other two parts of the teacher's planning responsibilities in a conventional program: the unit plan and the daily lesson plan.[1]

A **unit plan** focuses on one section of subject matter in the course. It is organized around one or more tasks or topics found in the course of study. It describes the teacher's instruction, the students' learning experiences, and the evaluation procedures to be used.

Still more specific is the **daily lesson plan.** Derived from the plans for a total unit, the lesson plan describes exactly what is to take place in the classroom or lab on each day in which students are engaged in a unit of instruction. The relationships among the course of study, courses, unit plans, and daily lesson plans are graphically portrayed in sample 1.

1. To gain skill in developing unit and lesson plans, you may wish to refer to Module B-3, *Develop a Unit of Instruction;* and Module B-4, *Develop a Lesson Plan.*

SAMPLE 1



In addition to its being the basic planning guide from which all the other instructional plans are drawn, the course of study serves several other purposes. It is the official document that describes the scope and substance of the vocational-technical program. As such, it is subject to approval by the school administration and serves as a reference when administrative decisions about the program need to be made.

For example, in a decision about the amount of credit to be awarded to students for completion of a course, the course of study and its time allocations may be consulted. When a school is being evaluated for accreditation, the visiting committee will usually examine the course of study and note its relation to the program facility and the student learning activities. As a new school building is being planned, the course of study is used as one basis for writing the educational specifications.

The course of study, however, is not written by administrators but by subject matter experts. Sometimes it is developed by **curriculum specialists** in the state department of education and furnished to the schools, or it may emerge from a university-based **curriculum development laboratory.** Quite frequently, the local secondary or postsecondary school takes responsibility for the development of the course of study, involving faculty as members of a **curriculum development team.**

In some situations, however, an **individual teacher** may be given sole responsibility for the whole job, with the administration involved only to the extent of giving final approval to the completed document. Or an instructor may take over an existing program and find an inadequate course of study that must be revised, enriched, and/or brought up-to-date.

Whatever your specific participation, the basic developmental processes will generally be the same, and the final products will have many similar characteristics.

Basic Components of a Course of Study

As already mentioned, there is some disagreement concerning what constitutes an ideal course of study. Different states, as well as different vocational service areas even within the same state, may use different structures and formats for their courses of study.

The **six basic components** of a course of study described here represent the minimum essential elements that are common to many vocational-technical courses of study. The terms used to describe these six components, however, vary from service area to service area in many cases. The most common variations found are mentioned in the following descriptions of the various components.

Program Description

A program description indicates the **general instructional areas of concern** and the **general goals and purposes** of the program. Several other phrases, such as *purposes of program* and *nature of program,* are sometimes used to describe the same thing. Specific program descriptions should provide the following information:

- Who is to be taught
- What they are to be taught
- What degree of skill is to be attained
- Where the training is to be used
- General employment conditions

The **who** specifies the program entrant (e.g., junior, senior, graduate of a two-year program, or individual with two years' experience). From this information, experience requirements can be inferred, if they are not stated. Aptitude and physical requirements are sometimes also specified. These requirements may become at least part of the criteria for selection of students.

The **what** identifies the occupation or part of the occupation for which preparation is to be provided (e.g., carpenter, welder, file clerk, nurse's aide). The **degree of skill to be attained** refers to the level of ability students should have upon completion of the program. The degree of skill to be attained will help determine the length of the program.

The **where** refers to the job situation in which the work will ultimately be performed, thus further specifying the boundaries of the program. The **employment conditions** refer to the employment environment. For example, is the work environment generally a normal temperature, very hot, or very cold? Is it typically quiet or noisy? Will the employee be working alone, with a few others, or in a room with many others? Will he/she be working primarily with data, people, things, or a combination? And so on.

The program description may include other relevant and useful information, such as student **prerequisites** (e.g., all students must have completed an introductory horticulture course before they can enroll in greenhouse management) or the necessity of student participation in on-the-job **cooperative training** for a specified number of hours while enrolled in the program. The basis upon which instructional content has been determined may also be indicated.

Program Content

The course of study starts with and develops from a listing of the instructional content to be taught—exactly what is to be covered in the particular program. At one time, the content—a list of instructional areas or major topics—was most typically derived from expert opinion in the form of existing courses of study, curriculum guides, textbooks, reference books, and other resources. Examples of instructional areas in vocational agriculture are as follows:

- Dairy enterprise
- Corn enterprise
- Small grains

in order to ensure that content is complete, accurate, up-to-date, and consistent with occupational reality, however, content now is most often in the form of a list of tasks (or skills or competencies) derived from an occupational analysis. Examples of competencies in vocational agriculture are as follows:

- Maintain herd health
- Plan breeding program

Course Objectives

Terminology is important here. The term *program objectives* generally refers to the **specific means used to achieve program goals.** For example, if you establish a goal for your existing program of improving instruction for physically handicapped students, then one program objective might be to eliminate physical barriers in the classrooms and labs.[2]

In this module, we are talking instead about those objectives that **define the total content** for a specific program within a service area. To differentiate between these "program objectives" and those derived from program goals, these content objectives are typically referred to as *course objectives*. This is logical since, in conventional programs, the tasks or topics listed in the course of study are generally clustered into courses.

Courses of study commonly specify the general objectives or learning outcomes to be achieved. More specific student performance objectives—which identify in some detail the level of performance to be achieved and the conditions under which the performance is to occur—are normally and more appropriately left to be developed as part of units of instruction and daily lesson plans.

Course objectives typically are derived from the **major instructional areas** to be covered or the **overall competencies** to be acquired by students. Sometimes, they also include the general standards of performance expected by business or industry. This general type of objective is intended as a guide to aid the teacher in the development of student performance objectives based on the specific needs, interests, and abilities of his/her students and the specific occupational standards of performance required.

The following is an example of a course objective:

In office settings, given drafts of reports and manuscripts to be typed, the learner will type reports and manuscripts in correct forms to produce mailable copies according to established office procedures.

Time Allocations

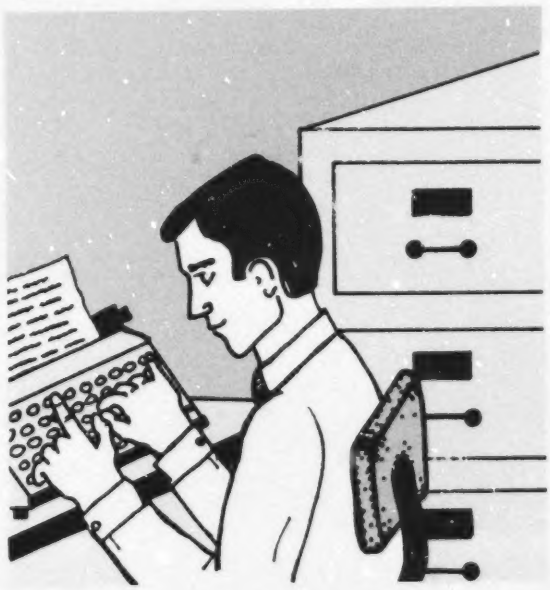
Another important component of the course of study—time allocations—indicates the suggested amount of instructional time, usually in terms of hours or class periods, that should be spent on each general instructional area (task or topic) or instructional unit.

It should be stressed that the time allocations appearing in a course of study should be viewed as a guide only and not accepted as hard-and-fast minimums that must be rigidly adhered to. Rather, the time specified for the various tasks, topics, or instructional units will frequently need to be adjusted to satisfy the training needs of a particular group of students.

Some time allocation tables reflect the suggested number of class or laboratory instructional periods (50 minutes each) that should be devoted to each major instructional area, during each year of the program. Other courses of study further break down the suggested time allocations on a unit-by-unit, topic, or block basis.

In some time allocation tables, the season of the year, as well as the number of instructional periods per unit, is given. This feature is important in such programs as production agriculture, because the timeliness of a particular unit of instruction can add relevancy. For instance, teaching a unit on selecting seed corn is more likely to be meaningful and provide opportunities for immediate application if taught

2. To gain skill in developing vocational program goals and objectives, you may wish to refer to Module A-6, *Develop Program Goals and Objectives*.



in the spring rather than in the fall. However, time-of-year designations are not found in most time allocation tables.

References and Audiovisual Materials

Most courses of study provide a list of related printed references and audiovisual materials. Although selective in nature, lists contained in courses of study and curriculum guides frequently provide more references than would normally be required to teach the various courses listed in the course of study. This is done to give the teacher an opportunity to make his/her own final selections.

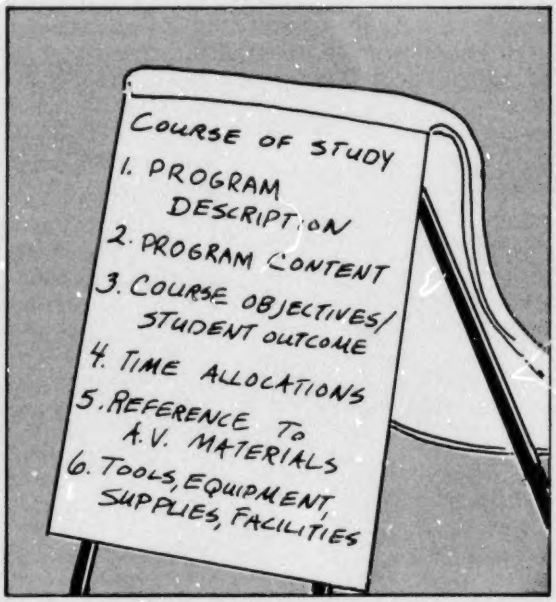
The list should be developed to include similar information to that which would be included in any standard bibliography: (1) title of reference or audiovisual material, (2) source where it can be obtained (i.e., name and location of the publisher), (3) publication date, and (4) number of pages (for a reference) or type of audiovisual material (e.g., 20-minute color videocassette).

Tools, Equipment, Supplies, and Facilities

The final section of most courses of study contains a list of recommended tools, equipment, and supplies needed to teach the various tasks or topics contained in the course of study. The quantity of items needed will, of course, depend heavily upon the number of students to be enrolled, the nature of the learning activities to be used, and the length of the program.

Some courses of study also include suggestions for the facilities needed to support the program. Information can be provided concerning space allocations and classroom/lab specifications. Other important aspects of facility planning may also be provided, such as specifications for an office/conference room, laboratory, floors, doors, tool storage area, locker facilities, lighting, ventilation, electrical service, water, heating, compressed air, and so on.

The six components described in this information sheet are not always found in every course of study. However, there is general consensus that each of the components described here should be present in any **well-developed** course of study.



To familiarize yourself with the scope, content, and format of courses of study in your service area, you may wish to (1) contact your resource person, an experienced vocational teacher, state department of education staff, or a local school or college administrator or supervisor and (2) ask to review courses of study, curriculum guides, or competency outlines prepared for programs in your service area or occupational specialty.

The following items check your comprehension of the material in the information sheet, The Course of Study, pp. 6–10. Each of the five items requires a short essay-type response. Please respond fully, but briefly, and make sure you respond to all parts of each item.

SELF-CHECK

1. Explain the relationship of a course of study to a unit of instruction and a lesson plan.

2. Outline the major points that should be addressed in a comprehensive program description.

3. Precise, measurable student performance objectives are usually not found in courses of study. Explain the reasons for this.

4. Why are time allocations an essential component of any good course of study?

5. React to the statement, "There is common agreement among the various vocational service areas concerning what constitutes a good course of study format."

NOTES

Compare your written responses to the self-check items with the model answers given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same **major** points.

MODEL ANSWERS

1. The course of study describes, in **general** terms, the content, objectives, and resources necessary for an entire vocational program within a particular service area. As such, it is the foundation for the more detailed instructional planning a vocational-technical teacher does when developing unit and lesson plans. A unit of instruction focuses on one task or topic listed in the course of study. The daily lesson plan focuses on one or more student performance objectives to be achieved during a particular unit of instruction.

   Thus, a written course of study might indicate that students are to develop human relations abilities. On the basis of that general guideline, a teacher would develop more detailed plans, in the form of unit and lesson plans, describing these abilities more specifically and **how** (e.g., learning activities, evaluation procedures) these abilities will be developed during classroom or laboratory instruction.

2. The program description section of a course of study gives a general overview of the nature and goals of the program. It indicates the following:

   - **Who** is to be taught (e.g., eleventh- and twelfth-grade students)
   - **What** they are to be taught (e.g., bookkeeping, general office skills)
   - What **degree of skill** is to be attained (e.g., entry-level)
   - **Where** the training is to be used (e.g., an accounting firm)
   - General **employment conditions** (e.g., a one-secretary office versus a firm with a large typing/secretarial pool)

3. A vocational course of study is intended as a general guideline (1) for teachers, to help them as they plan specific learning activities for students and (2) for administrators, to help them as they make decisions about the vocational program. It describes the **overall** abilities or competencies students completing a program will be expected to have.

   The course of study does not indicate to the teacher exactly how a particular topic or skill should be taught or exactly how students' performance is to be measured. Course of study objectives can and should, however, indicate the general occupational standards of performance required.

   Specific, measurable student performance objectives are found in the teacher's unit and lesson plans. These plans describe **how** a particular teacher will teach a particular group of students a certain skill or piece of information, the **conditions** under which that learning will occur or a competency will be demonstrated, **how well** students will be expected to perform, what **evaluation procedures** will be used, and so on.

4. It is important that vocational instructors, in making their detailed instructional plans for units and lessons, have a general idea of how much time should be spent on a particular task or topic. Suggested time allocations represent judgments (by the vocational teacher, others experienced in the occupation, curriculum specialists, and so on) about the relative **importance** of a particular task or topic in a program, as well as the average **amount of time** it should take to cover it.

   For example, the suggested time allocations in an accounting/computing course of study might indicate that more time will be needed to cover specific bookkeeping and accounting skills than to cover general office procedures, such as filing and answering the phone.

   These suggested time allocations do not, of course, take into consideration the unique needs of a particular group of students. Thus, they should be used as general guidelines to help in developing unit and lesson plans—plans that should reflect the actual classroom and school situation as much as possible.

5. There is actually little agreement among the various vocational service areas about what constitutes a good course of study format. Each service area has its own way of presenting instruction

and usually organizes the course of study to reflect that structure (e.g., a two- versus a four-year program; a program that focuses on the project method of instruction vs. a program of cooperative education and related instruction). In addition, various service areas, schools and colleges, or state departments will make decisions about **how much detail** is needed in a course of study, **what information should be supplied,** and what should be left to the planning of the individual vocational teacher or department.

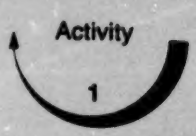
However, regardless of the degree of detail and the organization, most developers of courses of study agree that the document should outline the general **content, objectives,** and **resources** of a program if it is to be useful to teachers and administrators as a planning guide.

Level of Performance: Your written responses to the self-check items should have covered the same **major** points as the model answers. If you missed some points or have questions about any additional points you made, review the material in the information sheet, The Course of Study, pp. 6–10, or check with your resource person if necessary.

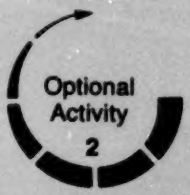
Learning Experience II

OVERVIEW

After completing the required reading, critique the performance of a teacher in a given case study in developing a course of study.



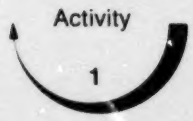
You will be reading the information sheet, Procedures for Developing a Course of Study, pp. 18–33.



You may wish to locate and meet with a vocational teacher or curriculum specialist experienced in developing courses of study to review and discuss the procedures he or she has followed in developing them.

You will be reading the Case Study, pp. 34–35, and writing a critique of the performance of the teacher described.

You will be evaluating your competency in critiquing the teacher's performance in developing a course of study by comparing your completed critique with the Model Critique, pp. 37–38.



Courses of study must be developed systematically, starting from a sound basis: an accurate listing of the tasks or topics to be covered in the vocational-technical program. For information on the steps and procedures to be followed in developing the six components of a well-developed course of study, read the following information sheet.

PROCEDURES FOR DEVELOPING A COURSE OF STUDY

Examination of the components of a completed course of study does not show how it was developed, nor does it indicate the bases or data on which it was constructed. However, the **processes** used in the development of a course of study are vitally important to its final usefulness and success in preparing students for the occupation.

If the developers use faulty or careless procedures in the production of the document, the final product might have all the appearances of a good course of study and yet be worse than useless. If, for example, the content is based on intuitive hunches or personal preference, rather than verified tasks or topics, students and teacher may waste valuable time in teaching and learning the wrong skills.

This does not mean, of course, that there is only one possible method of developing a course of study, nor does it imply that curriculum developers know all the answers to the complex questions of what students should learn and how teachers should instruct. However, enough is known to provide a basis for developing an effective course of study on which to base your instruction.

Most curriculum developers would organize the work of developing a course of study for vocational-technical education into seven major tasks. Each of these may involve several subtasks, and some would include input from outside sources. The sequence of tasks (the steps) in developing a course of study are shown in sample 2. Each of these steps will be discussed in the sections that follow.

Prepare a Program Description

Because the program description indicates the **basic goals** and **purposes** of the program, it must be the first component of the course of study to be developed and decided on. It is not to be applied as an ornament to a program that already exists.

The goals and purposes of a program evolve out of the goals of the entire school, the goals of the overall vocational-technical program, and the goals of the vocational service area. In preparing your program description, you need to examine these existing goal statements to help determine the basic purpose of your program and ensure that it reflects (is consistent with) these broad goals and objectives.

For example, the school may have as a major goal that of providing opportunity for students of all abilities to prepare for employment in the community. As a result, the vocational agriculture program may develop a program in lawn care to give students of moderate abilities the opportunity to find useful employment in an occupation of growing demand.

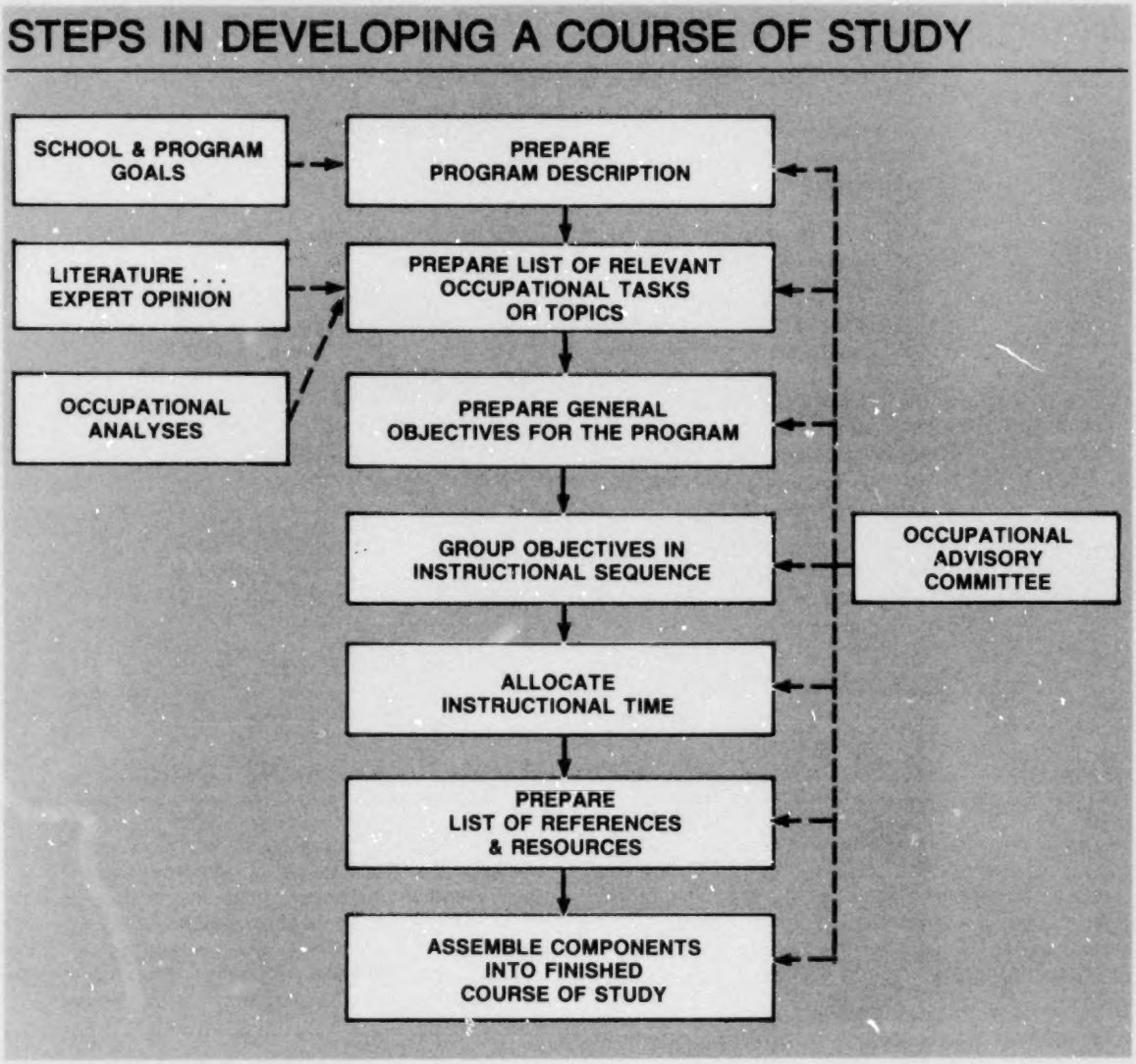
If it is difficult to specify and clarify the goals and purposes of a program, there may be some serious question concerning the value of the program itself.

Once you have stated the broad goals, you are ready to address the five elements of the program description: who is to be taught, what they are to be taught, what degree of skill is to be attained, where training will be used, and what the general employment conditions will be. Sample 3 shows a program description developed for an accounting/computing course of study.

Keep in mind that decisions will at this point be broad and general. You can say that the program is a two-year program designed to train students of moderate ability, during their junior and senior years (**who**) in the entry-level skills (**degree of skill**) needed to gain employment as cook's assistants at fast-food service operations (**where**).

You can say that employment opportunities in this area are numerous; locally, further on-the-job training is provided; and employee benefits are adequate (**conditions**). And you can broadly describe the final element (**what is to be taught**) by saying that students will be taught skills in applying for a job, preparing and serving food, stocking food, ensuring safe conditions, and so on.

SAMPLE 2


STEPS IN DEVELOPING A COURSE OF STUDY
SCHOOL & PROGRAM GOALS
LITERATURE . . . EXPERT OPINION
OCCUPATIONAL ANALYSES
PREPARE PROGRAM DESCRIPTION
PREPARE LIST OF RELEVANT OCCUPATIONAL TASKS OR TOPICS
PREPARE GENERAL OBJECTIVES FOR THE PROGRAM
GROUP OBJECTIVES IN INSTRUCTIONAL SEQUENCE
ALLOCATE INSTRUCTIONAL TIME
PREPARE LIST OF REFERENCES & RESOURCES
ASSEMBLE COMPONENTS INTO FINISHED COURSE OF STUDY
OCCUPATIONAL ADVISORY COMMITTEE

However, until you have actually completed all the steps involved in developing your course of study, you cannot be more specific. The program description should be broadly stated—designed to provide a framework and a guide for the further development of the course of study.

In developing a course of study, you may find that a program description already exists and needs simply to be reviewed and brought up-to-date in light of current student interests/needs and occupational requirements. Your occupational advisory committee may also be used to help you clarify the goals and purposes of a specific program.

SAMPLE 3

PROGRAM DESCRIPTION

Accounting/Computing

The accounting and computing vocational instructional program shall be a two-year, eleventh- and twelfth-grade program designed to prepare students for entry-level employment as bookkeeping and accounting clerks, payroll clerks, posting and billing machine operators, bookkeeping machine operators, and operators of programmable accounting machines and related data-entry equipment.

The students will also be taught the general office skills necessary for successful employment in most office work. Typewriting, filing, telephone techniques, and the operation of calculating machines will be taught as they relate to the field of accounting and computing. Vocational student organization activities are an integral part of the instructional program in developing poise, confidence, leadership abilities, civic responsibility, and communications skills, as well as in giving awards and recognition. As such, they will be provided in both the laboratory and related instruction.

The instructional program content is based upon an occupational analysis of the accounting field and adjusted to reflect local employment needs and opportunities as determined by the instructors, administrators, and advisory committee.

Prepare List of Relevant Occupational Tasks or Topics

Identifying exactly **what** is to be taught is the purpose of this second step in the procedure for developing a course of study. Quite obviously, this step is critical, not only to the success of the document but to the value of the whole vocational-technical program.

An error in thinking at this stage of the process can lead to the development of a program from which students leave ill-prepared to enter their chosen occupations. In recent years, techniques for identifying relevant occupational tasks have been given increased attention, which should improve the effectiveness of vocational-technical programs.

Occupational Analyses

Task lists for a specific vocational-technical program can be derived from an occupational analysis for the particular occupation. Occupational analysis involves gathering data from workers or supervisors in a given occupation, and it results in a **detailed list of the tasks performed** on the job by these workers.

Your school or college may have conducted an occupational analysis as part of the preparation for installing the vocational program, or the state department of vocational education may have furnished an occupational analysis to your institution for curriculum development purposes. If an up-to-date analysis is already available, it should be used as

the basis for identifying occupational tasks. If an analysis is not already available, you or your institution may need to conduct such an analysis or to acquire relevant occupational analyses from existing sources.[3]

From the occupational analysis, you must select those tasks that describe not only the occupation specified in the program description but also the occupational level. Tasks performed by an entry-level auto mechanic, for example, will very likely differ from those performed by a journeyman auto mechanic.

As you examine the occupational analysis and attempt to identify the tasks appropriate to your program, you should apply three questions to each task you consider:

- Is the task actually **performed** by the level of worker you are going to train? The worker must be competent in those tasks basic to the level at which he/she wishes to enter, and the training must be such that students can immediately perform the tasks successfully on the job.
- Is the task **critical** to the job success of this level of worker? If tasks are identified that can make a difference between job success and job failure and students are taught to perform these critical tasks, students can optimize their job performance.
- Is it **feasible** for the school to provide instruction in the task? Some tasks can be learned readily in a formal educational setting. Competence in other tasks, because of their nature, can be developed only on the job. If a task does not lend itself to formal in-school training, then it should not be included in the course of study.

Once the tasks, at the desired occupational level, have been identified, they should be placed in a list similar to that shown in sample 4. The tasks may be grouped according to duties, or they may be listed in random order at this point. Though such task listings should be prepared with care, you should remember that, since preparing a course of study is a developmental process, changes can be made in the results at any time.

Other Methods

Using the results of an occupational analysis is not the only way to identify the topics or tasks to be taught in your program. In fact, the scientifically derived analysis—employing (1) random samples of incumbent workers and sophisticated data processing techniques or (2) a small group of incumbent workers and their supervisors in a structured brainstorming session—is a relatively recent development. Traditionally, other methods of identifying occupational tasks have used expert opinion in some other form.

One source of expert opinion is found in previously developed **courses of study** and **curriculum guides.** These may be available to you from your own school or college, from your state department of education, from vocational curriculum laboratories, or through the National Network for Curriculum Coordination in Vocational and Technical Education—NNCCVTE (a network of six regional centers funded by the U.S. Office of Education to facilitate the sharing of curriculum materials on a nationwide basis).

Courses of study and curriculum guides developed by others may be of great value to you in identifying the tasks or topics of instruction that expert workers in your occupational area deem important. These documents may also include desirable related-instruction topics and materials that may be useful to you as you construct other components of the course of study.

There are two cautions that you need to keep in mind as you review these documents for possible adaptation to your own program:

- The goals and aims of your program and those on which these documents are based may be somewhat **different**. These differences must be carefully taken into account, and the occupational tasks/topics must be selected accordingly.
- These documents may not be completely **current.** In a fast-moving technological world, it is difficult to find printed materials that are up-to-date, so you will need to review and update the information carefully.

There are **other sources of information** that can be used as resources for identifying occupational tasks and topics: current textbooks, reference books, and manuals in the occupational area; technical periodical literature (magazines, journals, pamphlets); and government documents. These kinds of sources can be used individually, or they can be used as a check against each other to make sure the final task or topic list is as complete and up-to-date as possible.

A caution, however. Some programs, in the name of saving time and money, have used individual instructors (or a small group of instructors) to quickly identify the tasks to be taught in the program. Typically, this has involved simply selecting tasks on the basis of personal experience and preference.

---

3. To gain skill in conducting an occupational analysis or locating existing analyses, you may wish to refer to Module A–7, *Conduct an Occupational Analysis.*

SAMPLE 4

OCCUPATIONAL TASK LIST

Automotive Mechanics

Duty/Instructional Area: Maintaining and Repairing Fuel Systems

1. Adjust carburetor
2. Adjust governors
3. Analyze for moisture or foreign particle level in fuel
4. Analyze fuel injection problems by means of electrical diagnostic equipment
5. Clean carburetor
6. Clean or replace fuel filter units
7. Inspect, clean, and adjust choke unit (automatic and manual)
8. Inspect, service, or replace carburetor air cleaner
9. Inspect, service, or replace gas tank, cap, and sending unit
10. Install carburetors
11. Measure fuel flow and pressure
12. Perform operational checks of governors
13. Perform operational inspections of exhaust emission control systems
14. Perform operational inspections of fuel systems
15. Remove, service, or replace fuel pumps
16. Repair governors
17. Repair or replace electrical fuel injection computer
18. Repair or replace fuel injectors
19. Repair or replace fuel injector pumps
20. Repair or replace fuel lines and hoses
21. Repair or replace wiring harness for electronic fuel injection system
22. Repair or service carburetors
23. Repair or service exhaust emission control systems
24. Service or replace manifold heat controls
25. Service or replace units in vacuum systems

SOURCE: Sidney D. Borcher and Paul B. Leiter, *Automotive Mechanics Occupational Performance Survey*, Interim Report (Columbus, OH: The Center for Vocational Education, The Ohio State University, 1973), p. 45.

This approach has serious deficiencies that may significantly weaken the course of study. The task list so identified may be incomplete, out-of-date, and reflect only the current interests and abilities of the instructors, rather than the requirements of the occupation. This approach is hard to justify to either students, the profession, or prospective employers.

Verification of Tasks and Topics

Whether the course content is generated from textbooks and other reference documents, expert opinion, or occupational analyses, it is important that you verify the task or topic list to ensure that it is appropriate to your specific program and local needs. One of the best and most convenient ways of doing this is to involve your **advisory committee** in reviewing the list and suggesting improvements.

The advisory committee should examine each task or topic separately, decide whether each task is actually performed by workers in your local area, and determine whether the task is critical to the job success of the worker. The participation of the advisory committee in helping to select and verify the course content will not only strengthen the instructional program but can encourage their future support of the program.

Analysis of Verified Tasks and Topics

Each task or topic next needs to be analyzed—to be broken down into the knowledge, skills, and attitudes required. This step serves several very important purposes, one of which is to provide you with a more detailed basis for developing instructional plans.

More important, however, it helps you identify the relative "size" of the tasks or topics listed. No matter how carefully defined and structured the analysis process has been, tasks (competencies) and topics inevitably vary in size (i.e., in the amount of time and effort required to teach each topic or to learn each skill). By analyzing each task or topic, you can identify and remedy these inconsistencies.

It is difficult to describe exactly how large a task or topic statement should be. It can be said that it should not be so small and trivial as to require little or no training (e.g., count nuts and bolts for inventory) or so large and global as to provide little guidance for instruction (e.g., deal with the public). In general, each task or topic should require specific instruction, and it should be possible to complete the instruction within a reasonable period of time.

It is helpful to use a simple analysis form to structure the completion of this step (see sample 5). Using such a form, you can analyze each task or topic to determine (1) the subtasks, steps, or activities; (2) the cognitive (knowledge) elements involved; and (3) the affective (attitude) elements involved. Consideration of safety relative to all three areas is of key importance. Advisory committee members can be involved in this step, also.

SAMPLE 5

TASK ANALYSIS FORM

General Secretary

Competency: Produce Business Letters

In performing this competency, the secretary will need to do the following:

Conduct These Activities	Know the Following	Exhibit These Attitudes
1. Select appropriate materials	Types of stationery Type styles Number and type of copies needed	
2. Use correct letter format	Business letter parts Business letter styles	
3. Check for correct punctuation and spelling	Punctuation and spelling rules	
4. Edit letter as needed	Editing procedures Grammar	Caring attitude
5. Type letter	Accurate and efficient operation of typewriters	Exhibit concern for quality of finished product
6. Make appropriate corrections	Correction materials Correction procedures	Appreciation for accuracy and neatness
7. Proof completed letter	Proofreading skills	Appreciation for accuracy and neatness

Clustering of Tasks or Topics

After you have developed the list of tasks and topics, it is helpful to group or cluster related tasks or topics for instructional purposes. A **cluster,** in this sense, is a group of tasks or related topics that should be taught together in a course or unit. There must be some rationale for the cluster or some relationship among the tasks or topics. The rationale may be based on instructional efficiency, educational logic, limitations of equipment, size of task, and so on.

The partial automotive mechanics course of study in sample 4, p. 22, for example, showed one major instructional area in the program: maintaining and repairing fuel systems. Because of its size and weight, this instructional area might well be one **course** in the total auto mechanics program. It includes 25 job tasks, which may have been derived from an occupational analysis.

Note that several of the tasks listed in sample 4 deal with carburetors (tasks 1, 5, 7, 8, 10, and 22), and two of the tasks involve emission control systems (tasks 13 and 23). In this situation, the related tasks could be consolidated and their respective steps or activities integrated. Such a consolidated listing is shown in sample 6.

SAMPLE 6

CONSOLIDATED LISTING

Automotive Mechanics

Instructional Area: Maintaining and Repairing Fuel Systems

1. Clean or replace fuel filter units
2. Determine quality and flow of fuel
3. Inspect, service, or replace gas tank, cap, sending unit, and lines
4. Maintain and repair carburetors
5. Remove, service, or replace fuel pumps
6. Repair, replace, or service fuel injection system components
7. Repair or service exhaust emission control system
8. Service or replace units in vacuum systems

SOURCE: Adapted from Borcher and Leiter, *Automotive Mechanics Occupational Performance Survey*, p. 45.

Prepare General Objectives for the Course

The third major step in the course of study development process is the specification of overall course of study objectives. Opinions differ concerning the form these objectives should take. Some educators feel that course objectives should indicate only the **broad purposes or goals** of the program, as follows:

> *To develop competencies needed by students engaged in or preparing to engage in horticultural occupations*

These educators feel that specific (and appropriate) student performance objectives can be developed only after the teacher knows the specific abilities, interests, and needs of his/her students and the amount of time that can be devoted to the particular topic of concern.

Others feel that course objectives should be very **specific**—stated in performance terms, measurable, and with the conditions described, as follows:

> *Given previous classroom and laboratory instruction, the student will list and demonstrate the ten steps necessary in designing a corsage, wedding bouquet, and centerpiece.*

The best approach is probably between the two extremes. A course of study should indicate in a general way what the student will be expected to do

after completing the program. This means, then, that student performance objectives—which specify the terminal behaviors, conditions, and specific criteria for acceptable performance—should be developed as part of the unit or lesson planning process, rather than as part of a course of study.

This is **not** to say, however, that the general objectives contained in a course of study cannot or should not specify anything with regard to the general occupational standards of performance expected by business and industry. Identifying these standards can sometimes make your course objectives more useful bases for planning units and lessons.

How, then, should the course objectives be developed? Once the important topics or tasks that will constitute the course content have been determined and clustered, you are ready to look at the major areas of instruction that your program will deal with.

Note that, while the consolidated task statements in sample 6 indicate what the student should be able to do, nothing is said about the conditions under which the performance will occur or the occupational standards of performance expected. A course objective might read as follows:

The student will maintain and repair automotive fuel systems in accordance with the specifications contained in the manufacturer's service manuals.

Another way of stating the objective would be as follows:

Given an automobile on which the defects in the fuel system have been identified, the student will replace, reassemble when necessary, install, and adjust any part of the fuel system according to the manufacturer's specifications.

The standards of occupational performance expected by local business and industry are seldom contained in occupational analyses, courses of study, or curriculum guides. Therefore, it is recommended that the standards (criteria) for the course objectives be established with the aid of your advisory committee, whose members are knowledgeable about and experienced in the occupation involved.

On the basis of your experience, you might suggest standards for each objective, which could then be reviewed by members of the advisory committee in order to answer the following questions about each objective:

- Is the performance correctly stated?
- Are the standards realistic and acceptable?

If standards are provided as part of an occupational analysis, these should be considered. However, these also should be verified by the advisory committee.

Sequence Objectives

Once you have developed one or more course objectives for each of the tasks or topics identified, the objectives then need to be placed in a **sequence,** or order, to form the complete instructional program. The sequence must be constructed so as to make educational sense and maintain student motivation.

There is no simple formula or set of rules that can be applied to developing the sequence. You will need to draw on your own professional training and occupational experience. In addition, you may need to enlist the aid of consultants or members of your advisory committee to decide at what point in the program students should achieve each of the objectives.

The following guidelines should be considered in the sequencing process:

- Sequence objectives by using the nature of the content as a guide. Progress from simple notions to complex principles, from basic tasks to those requiring a high level of skill. Analyze the chain of needed skills to determine which skills must be learned before others can be attempted.
- Consider the facilities and resources required for various tasks. Some topics relate to subject matter knowledge that may be completed in the classroom. Others require special lab facilities or unusual amounts of time. Still other tasks may require work on a job site. Availability of lab and field settings may determine the order in which experiences may occur.
- The ways in which students learn (the psychology of learning) suggest another consideration in sequencing objectives. Consider student interests, concerns, and motivations. Vary the tasks so that highly motivating tasks will be interspersed among more routine ones.
- Consider the instructional and learning efficiency of grouping objectives. Those that have knowledge and skill relationships, that can be readily learned together, or that are convenient

to teach simultaneously may be combined to form larger topics.

A sequence of tasks for a grocery store cashier-checker is shown in Sample 7. The tasks are clustered and are arranged in the order (1) in which they will appear in the final course of study and (2) in which they will be taught. Each cluster has been summarized by a topic heading. The left column presents the major topics (clusters); the right column shows the tasks involved in each topic.

SAMPLE 7

SEQUENCED TASKS

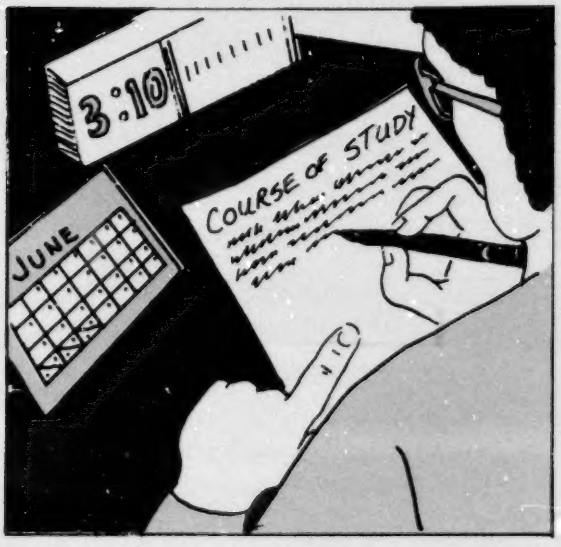
Grocery Store Cashier-Checker

Topic	Task Clusters
Operating the cash register	Manipulate cash register keys Correct cash register errors Change cash register tape
Calculating unit price of multiple-priced items	Determine unit price of multiple-priced items
Calculating sales tax	Calculate sales tax
Checking out loose produce	Weigh, price-mark, and bag produce
Handling refunds	Process cash refunds Process bottle refunds
Handling trading stamps and coupons	Accept consumer coupons Issue trading stamps
Accepting customers' payment	Identify acceptable checks Make change
Handling charge accounts	Write customer's charges Accept and record customer's accounts receivable
Preparing for work	Prepare check-out area for business Prepare cash drawer for daily business
Checking out customers	Ring up orders of merchandise on cash register Check out Federal Food Stamp purchases
Closing out the cash register	Fill out a cash register daily balance form

Topic	Task Clusters
Bagging orders of merchandise	Bag customer's orders of merchandise
Maintaining good customer relations	Answer customer's inquiries Adjust customer's complaints Refer customer's complaints to proper store authority Record customer's requests for merchandise
Stocking merchandise	Price-mark merchandise Stock merchandise in racks and on shelves Change prices on pre-stocked merchandise

Allocate Instructional Time

Another of the important steps in the process of developing a course of study involves indicating the amount of instructional time that should be devoted to each topic or task. This is very important because time is usually one of the major course constraints to be dealt with in a conventional program. Its importance can be readily perceived when you consider the number and scope of the learning experiences with which students must be provided within the time available.



Ideally, your prime consideration should be the instructional needs and career goals of each of your students, and time should not be a factor. The student should receive the amount of training needed irrespective of time. Given a well-constructed course of study, you should be able to determine how many hours are required for each unit (task or topic).

The total **unit hours** needed for each course in the course of study should be the deciding factor in determining how long each course should be. The total **course hours** needed should be the deciding factor in determining how long the program should be.

However, schooling at present is generally time-based, and you need to adjust your plans to meet this reality. If time will not allow you to cover all the tasks and topics you have outlined, there are two alternatives.

One is to **alter** the characteristics of the **who** in the program description (e.g., require students to possess skill in more of the specific tasks when they enter the program). This is not often practical, however, since it may mean crowding too much content into a prerequisite course or developing a whole new course to fill the gap.

The other alternative is to **reduce the length** of the program by (1) eliminating some objectives, (2) reducing the standards to be attained, or (3) some combination of the two. If this alternative is to be implemented, care should be taken to ensure that the

tasks and topics essential to providing students with needed entry-level skills are not eliminated. Students entering the program should not be started on tasks or topics they cannot handle. Students completing the program should be adequately prepared for advanced training or for placement on the job.

Furthermore, standards of performance should be reduced only if they are not reduced below the performance level required for on-the-job success. If students still require a great deal of on-the-job training when they start seeking employment, their chances of being hired for the job of their choice may be jeopardized.

To determine if your course of study is realistic in terms of the time available, you should first determine the **time frame** established for the program or each course in the program (e.g., number of semesters, quarters, class sessions, hours). Such limits are usually established by administrative or supervisory personnel.

Next, specific **time allocations** should be assigned to each task or topic. An example of how time is assigned on the basis of instructional areas is shown in sample 8. It is easier to determine if the assigned times are realistic, however, if you assign times for both the instructional areas and the units within each area. An example of this type of time allocation is shown in sample 9.

Notice that in samples 8 and 9, the time is specified in instructional **hours.** This is recommended since it is a more precise measure than other commonly used measures, such as semesters or quarters.

In assigning instructional time to the various topic areas, start by using your own judgment. Your experiences should be supplemented by referring to other relevent courses of study, curriculum guides, instructional units, or similar curricular materials to determine how much instructional time others assigned to specific topics. Your advisory committee members should then be asked to review the assigned times and indicate whether they consider them to be realistic.

Once you know exactly how many hours you have available for your courses or program and have estimated the number of hours required for instructional areas and/or units in your course of study, you can then determine if your course of study is realistic. If not, you will have to make the necessary adjustments.

SAMPLE 8

TIME ALLOCATIONS: INSTRUCTIONAL AREAS

Carpentry

Instructional Areas	Hours		Totals
	First Year	Second Year	
1. Orientation	15	15	30
2. Care and Use of Tools	60	25	85
3. Forms and Foundations	120	30	150
4. Wall and Floor Framing	200	25	225
5. Roof Framing	120	15	225
6. Cornice and Exterior Trim		100	100
7. Roofing		30	30
8. Interior Trim		125	125
9. Cabinet Work		85	85
10. Stair Construction		50	50
11. Review and Evaluation	25	40	65
Totals	540	540	1080

SAMPLE 9

TIME ALLOCATIONS: AREAS AND UNITS

Beauty Culture I

	Hours	Total Hours
Instructional Area 1: The Shop and the Cosmetologist		59
Unit 1.1: Professional Projection	37	
Unit 1.2: Hygiene and Good Grooming	4	
Unit 1.3: Anatomy and Physiology	15	
Unit 1.4: The Beauty Salon or School	3	
Instructional Area 2: Sterilization Practices in the Beauty Salon		16
Unit 2.1: Bacteriology	4	
Unit 2.2: Sterilization	12	
Instructional Area 3: Scalp and Hair Applications and Shampooing		29
Unit 3.1: Shampooing	10	
Unit 3.2: The Skin	10	
Unit 3.3: The Scalp	4	
Unit 3.4: The Hair	3	
Unit 3.5: Chemistry	2	
Instructional Area 4: Hairstyling		93
Unit 4.1: Introduction to Hairstyling	7	
Unit 4.2: Fingerwaving	17	
Unit 4.3: Maypole Curl	9	
Unit 4.4: Pin Curl	11	
Unit 4.5: Sculpture Curl	24	
Unit 4.6: Roller Curl	20	
Unit 4.7: Cascade Curl	5	
Instructional Area 5: Manicuring		46
Unit 5.1: The Nail	4	
Unit 5.2: Bones and Nerves of the Arm and Hand	2	
Unit 5.3: Muscles of the Hand, Arm, and Shoulders	1	
Unit 5.4: Blood Supply of the Arm and Hand	2	
Unit 5.5: The Plain Manicure	37	
Instructional Area 6: Hair Pressing and Iron Curling		27
Unit 6.1: Introduction	7	
Unit 6.2: Hair Pressing	10	
Unit 6.3: Iron Curling	10	
TOTAL HOURS		270

SOURCE: Adapted from Dorothy S. Mankiw and Michael A. Elefante, *Beauty Culture I: Teacher's Guide* (New Brunswick, NJ: Rutgers — The State University, Vocational-Technical Curriculum Laboratory, 1973), p. 5.

The assignment of instructional time can be a rather difficult task, especially for the beginning teacher. At best, these assigned times should be considered as guides with the actual instructional time varying according to the specific characteristics of the students and the facilities. However, you should still try to make assigned times as realistic as possible if you are to accomplish all your objectives.

Even when an instructional program is operating on a completely individualized basis, times should be specified. These times can then be used by both teacher and students in evaluating student progress and planning future educational experiences.

Prepare List of References and Resources

The next step in the development process—identifying the materials needed to support your course of study—involves considerable judgment. You will need to make decisions at this point concerning the references, audiovisual materials, equipment, tools and facilities that will be needed to conduct the program you have outlined. However, the list you prepare will not be a detailed list of every single item you will need to present each lesson or unit. Only **selected** references and resources should be included in the course of study.

For example, although a particular lesson may require a quantity of specific references and resources (e.g., 1 handout, 3 supplementary references, 1 film, 4 models, and 12 transparencies), these will not be listed in the course of study. For the course of study, you need to identify **major items,** such as a basic textbook, student workbooks, a series of 8-mm film loops, a piece of equipment, or a set of tools—items that would aid in the achievement of the broad objectives contained in your course of study.[4]

References and Audiovisual Materials

Printed references and audiovisual aids that might be considered for inclusion in your course of study can be located through a number of sources. By reviewing existing courses of study and curriculum guides produced by state departments of education, curriculum labs, and teacher education departments, you can usually locate a number of recommended materials.

Recent publishers' catalogs are another source of ideas for both references and audiovisual materials. In addition, *Resources in Vocational Education* (RIVE)—a bimonthly publication produced by the ERIC Clearinghouse on Adult, Career, and Vocational Education at The Ohio State University—can provide you with indexes to and summaries (abstracts) of a variety of instructional and research material intended primarily for teacher or student use.

A primary consideration in selecting any material is whether it could help in the achievement of your course objectives. In addition, however, you need to measure each tentative item against a number of other criteria, as follows:

- All materials must be designed for the level of students for whom your program is designed.
- Written materials need to be appropriate for the general reading level of the students for whom your program is designed.
- Materials should contain no racial or sexual stereotyping.
- Materials should be realistic, accurate, and up-to-date.
- Materials should be motivational.
- Materials should be of high quality.
- Materials should be still available for purchase.
- Audiovisual materials should be appropriate for the equipment and facilities you have or will have available.

Once you have tentatively selected and evaluated potential materials, you could ask your advisory committee to review your list and suggest additions or deletions.

Facilities, Equipment, and Tools

Your own occupational and professional training and experience (and that of your fellow teachers) can be of considerable help to you in specifying the facilities, equipment, and tools needed for your course of study. In addition, people from business and industry and members of your advisory committee can be of much help in this area and should be consulted.

Equipment and tools can also be located through suppliers' catalogs, textbooks or other references, and existing courses of study or curriculum guides. Specifications for facility needs can be located by checking facilities guides produced by the state department of education, curriculum guides, or available references on facility planning, or by consulting with state supervisors, teacher educators, and others experienced in planning facilities.

4. To gain further skill in determining what references and resources are needed to support your course of study, you may wish to refer to Module E-1, *Project Instructional Resource Needs.*

Ideally, you should specify basic tools, equipment, and facilities required to meet your instructional needs. For example, the following tools, equipment, and supplies might be among those recommended for a program in agricultural mechanics:

- Drill press - variable speed
- Arc welders - 225 amp. A.C.
- Carbon arc torch - optional
- Acetylene welder sets - with two-stage regulators
- Oxygen tanks
- Acetylene tanks
- Cylinder trucks
- Steam jenny
- Electrical engraving tool
- Clutch aligning tool

However, tools are expensive, equipment is more expensive, and facilities more expensive still. Available facilities may also be predetermined. Thus, you need to establish what your limitations are in terms of available funds and facilities, and then specify your needs for tools, equipment, and facilities accordingly.

Whatever needs you specify in this area, you should make sure the following criteria are met:

- Tools, equipment, and facilities should reflect actual conditions in business and industry.
- Tools, equipment, and facilities should be of high quality.
- Tools and equipment should include all items necessary for students to perform the various job tasks needed to meet the objectives specified in the course of study.
- Tools and equipment should have built-in safety features.

Assemble the Course of Study into an Acceptable Format

The final step in developing a course of study is to assemble all its components into an acceptable format that is easy to read and understand. A review of existing courses of study will reveal that there is no **one** acceptable format. The format you use should be the one best designed to meet your immediate needs.

An example of one workable format is shown in sample 10. Note that, although the sample shows the entire course of study on two pages, in reality each section of the course of study may be one or many pages in length.

When the components have been placed into an acceptable format, the course of study can be considered finalized. It should then be distributed to appropriate individuals and used as a guide for the further preparation of instructional materials and for providing educational experiences to students.

Though the course of study serves as an operating plan for the instructional program, it should be considered as a suggested, not an absolute, guide. As the course of study is used in planning and implementing your more specific units and lessons, you should note any weaknesses or needed additions so that the course of study can be modified where necessary.

Once you have completed the process of developing a course of study, you need to submit the completed course of study to both your advisory committee and to your administration for suggestions and final approval.

SAMPLE 10

FORMAT FOR COURSE OF STUDY

Course Title: _____

I. Course Description

II. Course Content

Major Instructional Areas (Tasks or Topics)
1.
2.
3.
4.
5.

III. Course Objectives

1.
2.
3.
—
—
—

IV. Time Allocations*

Instructional Areas/Units	**Time Allocations by Class Hours**
1.	
a.	
b.	
c.	

*This section may also have the time allocations broken down year by year: Freshman Level, Sophomore Level, Junior Level, Senior Level.

V. Selected References and Audiovisual Materials

Books
1.
2.
—
Periodicals
1.
2.
—
Films
1.
2.
—
Filmstrips/Slides
1.
2.
—

VI. Tools, Equipment, Supplies, and Facilities

Tools
1.
—
Equipment
1.
—
Supplies
1.
—
Facility Requirements
Classroom:

Laboratory:

Storage:

Course of Study Prepared by: _____

Date Prepared: _____

Date Reviewed by Advisory Committee: _____

You may wish to arrange through your resource person to meet with a vocational teacher or curriculum specialist to review and discuss the procedures he or she followed in developing a course of study. At this meeting, you could discuss such matters as the following:

- Methods used to identify tasks or topics
- Degree of specificity of the course objectives developed
- How realistic time allocations were determined
- Criteria used for selecting resources
- Format chosen to use to organize the course of study components

The following case study describes how a vocational teacher named Mr. Liberty developed a course of study. Read the case study and **critique in writing** (1) the procedures he used to develop the course of study and (2) the content of the document he prepared.

CASE STUDY

Mr. Liberty was on his way to a faculty meeting called by the new vocational supervisor, Mr. Bell. Rumor had it that Mr. Bell had called the meeting because he was dissatisfied with the way the total vocational program was running.

However, as an experienced second-year teacher, Mr. Liberty found that hard to believe. He himself had detailed daily lesson plans worked out that structured his whole program and that he adhered to strictly. He assumed the other instructors had the same. If there was a problem with the vocational program, it was with the quality of the students he was sent and expected to train.

Mr. Bell began the meeting by introducing himself and then explaining the source of his dissatisfaction. According to Mr. Bell, it all started when he received several complaints from students and former students concerning three problem areas: (1) some students reported they were having to study the same material in different classes; (2) others felt they hadn't been adequately prepared for their higher-level classes at the previous level; and (3) some former students complained that they were having difficulty obtaining and functioning in the jobs for which they had supposedly been trained.

Mr. Bell noted that he had been provided with curriculum guides for the various vocational programs when he accepted his position. Although the material in these guides needed to be updated, he felt that using them **should have** resulted in an effective, coordinated program.

However, in his contacts with the faculty members, Mr. Bell had discovered that few vocational teachers were even aware that these guides existed. Mr. Bell indicated that the purpose of this meeting, therefore, was to correct this situation by developing an updated curriculum, or course of study, covering each of the programs in the various service areas.

He then explained what a course of study was, the components it should contain, and the format it should follow. Copies of a sample format were handed out to each teacher. He requested that each teacher contribute to the total course of study by preparing courses of study for each course or program he/she taught.

Mr. Liberty left the meeting annoyed. As far as he was concerned, his courses **were** coordinated. It was the students who couldn't or wouldn't take advantage of his good efforts and hard work. However, he figured it couldn't hurt to please the new supervisor. Besides, although it would take him some time to pull it all together, it was little more than busywork involving compiling all his detailed lesson plans for the four courses he was teaching.

It was lucky he had done those plans. When he first came to the school, he'd had nothing to go on but the students' texts, workbooks, and manuals, and existing equipment and supplies. Following these closely, he'd managed to develop some pretty solid lesson plans.

During the next few days, he pulled together all his materials and settled down to the task at hand. First, he listed the topics for each of the lessons for each of the courses, in the sequence in which they were taught. Then he listed the time allocations for each topic.

Looking these over, he was once again exasperated at the slowness of his students—how no amount of prodding seemed to get them to finish the necessary activities in the time he'd allotted. Maybe this course of study business wasn't such a bad idea after all. When he turned it in, he could try convincing his supervisor that a better quality of student should be enrolled in his courses.

Then he copied all the student performance objectives for all the lesson plans for each course, again in sequence. After listing these objectives, he looked them over, especially the criteria, noting with satisfaction what high standards he had insisted on. It was too bad so few of his students were able to meet what **he** considered to be minimal standards of excellence. He put the work aside at that point (having used up half a pack of typing paper).

The next day, he reluctantly went through all the lesson plans again, listing all the resources needed for each lesson, including references, tools, equipment, supplies, facilities, and so on.

Now came the easy part, preparing the program description. Also, this section gave him another chance to describe the type of student he wanted in his program. He reviewed all the material he'd prepared thus far, then summarized his needs. His summary stated that students should carry a *B* average, and would be taught those occupational skills that would enable them to obtain jobs above the entry level. He put everything in a notebook for his supervisor, looking forward to discussing further with his supervisor the ideas he had for improving his courses.

NOTES

Compare your written critique of the teacher's performance with the model critique given below. Your response need not exactly duplicate the model response; however, you should have covered the same **major** points.

MODEL CRITIQUE

Mr. Liberty appears to be a very conscientious, hard-working teacher who truly desires to give students high-quality vocational preparation. However, his approach to instruction is too isolated and unrealistic, and he has failed to accurately understand either the purposes of or procedures for developing a course of study. When Mr. Bell finally discusses the course of study with Mr. Liberty, the supervisor's voice is not likely to ring with approval.

One of the first indications that Mr. Liberty may have an unrealistic view of his program's effectiveness appears during Mr. Bell's presentation. The various vocational teachers are each following their own separate plans, with no coordination between or among them. Students and former students have verified this lack of coordination between courses and between school preparation and occupational requirements. These facts point to the existence of problems within the total program. However, according to Mr. Liberty, the fault lies with his students. It never occurs to him, even after Mr. Bell's meeting, that his program could be at fault.

It is this mental set of his that causes him to make his first mistake. Instead of approaching the development of the course of study from scratch, he chose to simply document what he'd been doing for the past two years, in detail. A course of study should not be based only on what you have been doing.

However, in this case, it's even worse since his **original** plans were not developed according to effective procedure. They were based only on the few references and some existing equipment that he had in his classroom. He doesn't see the development of a course of study as a means for structuring a program that most effectively meets the needs of the school, the students, the community, and business and industry. Instead, he sees it as a means for documenting the value of his existing program and for convincing his supervisor to raise the level of the students enrolling in his program.

The central fault in Mr. Liberty's procedure for developing a course of study was in his using a set of highly detailed lesson plans as the basis for the document. Having made this decision, he committed a series of unavoidable procedural and developmental errors. First, instead of starting by developing a broad program description to provide a framework for the remainder of the document, he plunged right into copying topics from his lesson plans and assigning time allocations based on his past experience.

In determining topics and time allocations for a course of study, he should have consulted a number of sources: existing curriculum guides, occupational analyses, the advisory committee, other vocational teachers in his service area, as well as his own experience. This would have ensured that the topics he was listing in fact described the skill areas he should cover to prepare his students for the occupation. It would also have helped ensure that his time allocations were realistic, accurate, and adequate in terms of the relative importance of the various topics. At present, he considers them to be correct in spite of the fact that his students are unable to get through the lesson activities in the time he has allotted.

Sequencing did not become an issue because he assumed that his lesson plans were logically ordered. However, had he checked outside sources, he might have discovered that his sequencing could have been improved.

Procedurally, the next step he took (listing course objectives) was correct, but these objectives should not have been copied from his lesson plans. His lesson plans contain precise, measurable student performance objectives, rather than broad course objectives that can be used as a basis for more detailed unit and lesson plans.

In addition, since the topics in these lesson plans were not based on a systematic review of relevant sources, the objectives he developed for the lesson plans will probably be similarly unrealistic in terms of occupational requirements. The criteria for these objectives are quite obviously **his** standards, not those of business and industry, and his students are having a hard time meeting them. This indicates that they may be unrealistic both in terms of what industry requires and what students can be expected to achieve.

Again, his development of the section on resources suffered from the same weaknesses as his other sections: too much detail and lack of adequate sources. He simply listed every single resource he used in his day-to-day lessons, rather than identifying the major resource and facility needs that would be required to support the program. And he failed to check such sources as publishers' catalogs, suppliers' catalogs, existing curriculum guides, textbooks, and members of his advisory committee. It is through such outside resources that a teacher ensures that the items listed in the course of study are of high quality, are up-to-date, and reflect actual occupational requirements and conditions.

His final step, preparing a program description, should have been his **first** step. It should be a guide, not a summary. In addition, instead of gearing it to reflect (1) the goals of the school and the total vocational program and (2) the expectations of business, industry, and the community, he used it to promote his own biases and present a set of specifications for the kinds of students he wants in his program.

Finally, he neglected an entire section of the program description, and it is this same neglect that colored the whole process he used in developing the course of study. He is attempting to plan a course of study for students, with no consideration for **where** students will be working and what their employment **conditions** will be. Instead, he spent all his effort describing the type of student he wanted to train and the high level of skill he expected students to attain, ignoring completely occupational realities.

Level of Performance: Your written critique of the teacher's performance should have covered the same **major** points as the model critique. If you missed some points or have questions about any additional points you made, review the material in the information sheets, The Course of Study, pp. 6–10, and Procedures for Developing a Course of Study, pp. 18–33, or check with your resource person if necessary.

Learning Experience III

FINAL EXPERIENCE

For an actual teaching situation,* develop a course of study.

As part of your teaching duties (working individually or as a member of a committee), develop or revise and update a course of study. This will include—

- obtaining input from a variety of relevant sources in developing the course of study
- developing the program description, program content, and general course objectives
- determining time allocations for each instructional area and/or unit
- identifying the references and resources required
- assembling the components into an appropriate format
- distributing the course of study to appropriate persons

NOTE. As you complete each of the above activities, document your activities (in writing, on tape, through a log) for assessment purposes.

Arrange to have your resource person review your written course of study and other documentation.

Your total competency will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 41–43.

Based upon the criteria specified in this assessment instrument, your resource person will determine whether you are competent in developing a course of study.

*For a definition of "actual teaching situation," see the inside back cover.

NOTES

TEACHER PERFORMANCE ASSESSMENT FORM

Develop a Course of Study (A–8)

Directions: Indicate the level of the teacher's accomplishment by placing an X in the appropriate box under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
In developing (or revising and updating) a course of study, the teacher:						
1. followed the suggested procedures in the proper order	☐	☐	☐	☐	☐	☐
2. tapped the following sources, where appropriate, throughout the development process:						
a. members of the advisory committee	☐	☐	☐	☐	☐	☐
b. existing courses of study or curriculum guides	☐	☐	☐	☐	☐	☐
c. occupational analyses	☐	☐	☐	☐	☐	☐
d. other vocational teachers	☐	☐	☐	☐	☐	☐
e. state department personnel	☐	☐	☐	☐	☐	☐
f. teacher educators	☐	☐	☐	☐	☐	☐
g. relevant textbooks and references	☐	☐	☐	☐	☐	☐
The program description section:						
3. reflects the goals of the school, the total vocational program, and the service area	☐	☐	☐	☐	☐	☐
4. covers the following elements:						
a. who is to be taught	☐	☐	☐	☐	☐	☐
b. what they are to be taught	☐	☐	☐	☐	☐	☐
c. what degree of skill they are to attain	☐	☐	☐	☐	☐	☐
d. where the training is to be used	☐	☐	☐	☐	☐	☐
e. general employment conditions	☐	☐	☐	☐	☐	☐
The program content section:						
5. consists of a listing of major topics or tasks	☐	☐	☐	☐	☐	☐
6. includes topics or tasks that reflect the realities and requirements of actual occupational conditions	☐	☐	☐	☐	☐	☐

	N/A	None	Poor	Fair	Good	Excellent
7. includes topics or tasks that are appropriate to the level of the students to be trained	☐	☐	☐	☐	☐	☐
8. includes topics or tasks that are logically clustered	☐	☐	☐	☐	☐	☐
9. includes topics or tasks that clearly indicate the knowledge and skills to be acquired by students	☐	☐	☐	☐	☐	☐
The course objectives section includes objectives that:						
10. are derived from the topics in the program content section	☐	☐	☐	☐	☐	☐
11. focus on the overall abilities and competencies to be acquired	☐	☐	☐	☐	☐	☐
12. include each of the following elements:						
a. what is to be learned	☐	☐	☐	☐	☐	☐
b. general occupational standards to be achieved	☐	☐	☐	☐	☐	☐
13. are logically sequenced to form the complete instructional program	☐	☐	☐	☐	☐	☐
The time allocations section:						
14. clearly indicates a suggested amount of time per topic, task, or instructional unit	☐	☐	☐	☐	☐	☐
15. is calculated in terms of class hours or periods	☐	☐	☐	☐	☐	☐
16. is accurate and realistic	☐	☐	☐	☐	☐	☐
17. is consistent with the time allocated for the total course	☐	☐	☐	☐	☐	☐
The references, resources, and facilities section:						
18. includes selected references and audiovisuals	☐	☐	☐	☐	☐	☐
19. lists all tools and equipment necessary for students to perform the tasks or topics listed in the course of study	☐	☐	☐	☐	☐	☐
20. includes only items that:						
a. are up-to-date	☐	☐	☐	☐	☐	☐
b. reflect actual occupational conditions and requirements	☐	☐	☐	☐	☐	☐
c. would be appropriate for the level of students to be trained	☐	☐	☐	☐	☐	☐
21. includes facilities specifications (optional)	☐	☐	☐	☐	☐	☐

	N/A	None	Poor	Fair	Good	Excellent
The format of the course of study:						
22. is appropriate for the service area	☐	☐	☐	☐	☐	☐
23. is readable and understandable	☐	☐	☐	☐	☐	☐
24. is organized in a logical sequence	☐	☐	☐	☐	☐	☐
The completed course of study:						
25. was reviewed and approved by the occupational advisory committee	☐	☐	☐	☐	☐	☐
26. was reviewed and approved by the school or college administration	☐	☐	☐	☐	☐	☐

Level of Performance: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

NOTES

ABOUT USING THE NATIONAL CENTER'S PBTE MODULES

Organization

Each module is designed to help you gain competency in a particular skill area considered important to teaching success. A module is made up of a series of learning experiences, some providing background information, some providing practice experiences, and others combining these two functions. Completing these experiences should **enable** you to achieve the **terminal** objective in the final learning experience. The final experience in each module always requires you to demonstrate the skill in an actual teaching situation when you are an intern, a student teacher, an inservice teacher, or occupational trainer.

Procedures

Modules are designed to allow you to individualize your teacher education program. You need to take only those modules covering skills that you do not already possess. Similarly, you need not complete any learning experience within a module if you already have the skill needed to complete it. Therefore, before taking any module, you should carefully review (1) the introduction, (2) the objectives listed on p. 4, (3) the overviews preceding each learning experience, and (4) the final experience. After comparing your present needs and competencies with the information you have read in these sections, you should be ready to make one of the following decisions:

- That you do not have the competencies indicated and should complete the entire module
- That you are competent in one or more of the enabling objectives leading to the final learning experience and, thus, can omit those learning experiences
- That you are already competent in this area and are ready to complete the final learning experience in order to "test out"
- That the module is inappropriate to your needs at this time

When you are ready to complete the final learning experience **and** have access to an actual teaching situation, make the necessary arrangements with your resource person. If you do not complete the final experience successfully, meet with your resource person and arrange to (1) repeat the experience or (2) complete (or review) previous sections of the module or other related activities suggested by your resource person before attempting to repeat the final experience.

Options for recycling are also available in each of the learning experiences preceding the final experience. Any time you do not meet the minimum level of performance required to meet an objective, you and your resource person may meet to select activities to help you reach competency. This could involve (1) completing parts of the module previously skipped, (2) repeating activities, (3) reading supplementary resources or completing additional activities suggested by the resource person, (4) designing your own learning experience, or (5) completing some other activity suggested by you or your resource person.

Terminology

Actual Teaching Situation: A situation in which you are actually working with and responsible for teaching secondary or postsecondary vocational students or other occupational trainees. An intern, a student teacher, an inservice teacher, or other occupational trainer would be functioning in an actual teaching situation. If you do **not** have access to an actual teaching situation when you are taking the module, you can complete the module **up to** the final learning experience. You would then complete the final learning experience later (i.e., when you have access to an actual teaching situation).

Alternate Activity or Feedback: An item that may **substitute** for required items that, due to special circumstances, you are unable to complete.

Occupational Specialty: A specific area of preparation within a vocational service area (e.g., the service area Trade and Industrial Education includes occupational specialties such as automobile mechanics, welding, and electricity.

Optional Activity or Feedback: An item that is not required but that is designed to **supplement** and enrich the required items in a learning experience.

Resource Person: The person in charge of your educational program (e.g., the professor, instructor, administrator, instructional supervisor, cooperating/supervising/classroom teacher, or training supervisor who is guiding you in completing this module).

Student: The person who is receiving occupational instruction in a secondary, postsecondary, or other training program.

Vocational Service Area: A major vocational field: agricultural education, business and office education, marketing and distributive education, health occupations education, home economics education, industrial arts education, technical education, or trade and industrial education.

You or the Teacher/Instructor: The person who is completing the module.

Levels of Performance for Final Assessment

N/A: The criterion was not met because it was **not applicable** to the situation.

None: No attempt was made to meet the criterion, although it was relevant.

Poor: The teacher is unable to perform this skill or has only **very limited ability** to perform it.

Fair: The teacher is unable to perform this skill in an acceptable manner but has **some ability** to perform it.

Good: The teacher is able to perform this skill in an **effective** manner.

Excellent: The teacher is able to perform this skill in a **very effective** manner.

Titles of the National Center's Performance-Based Teacher Education Modules

Category A: Program Planning, Development, and Evaluation

- A-1 Prepare for a Community Survey
- A-2 Conduct a Community Survey
- A-3 Report the Findings of a Community Survey
- A-4 Organize an Occupational Advisory Committee
- A-5 Maintain an Occupational Advisory Committee
- A-6 Develop Program Goals and Objectives
- A-7 Conduct an Occupational Analysis
- A-8 Develop a Course of Study
- A-9 Develop Long-Range Program Plans
- A-10 Conduct a Student Follow-Up Study
- A-11 Evaluate Your Vocational Program

Category B: Instructional Planning

- B-1 Determine Needs and Interests of Students
- B-2 Develop Student Performance Objectives
- B-3 Develop a Unit of Instruction
- B-4 Develop a Lesson Plan
- B-5 Select Student Instructional Materials
- B-6 Prepare Teacher-Made Instructional Materials

Category C: Instructional Execution

- C-1 Direct Field Trips
- C-2 Conduct Group Discussions, Panel Discussions, and Symposiums
- C-3 Employ Brainstorming, Buzz Group, and Question Box Techniques
- C-4 Direct Students in Instructing Other Students
- C-5 Employ Simulation Techniques
- C-6 Guide Student Study
- C-7 Direct Student Laboratory Experience
- C-8 Direct Students in Applying Problem-Solving Techniques
- C-9 Employ the Project Method
- C-10 Introduce a Lesson
- C-11 Summarize a Lesson
- C-12 Employ Oral Questioning Techniques
- C-13 Employ Reinforcement Techniques
- C-14 Provide Instruction for Slower and More Capable Learners
- C-15 Present an Illustrated Talk
- C-16 Demonstrate a Manipulative Skill
- C-17 Demonstrate a Concept or Principle
- C-18 Individualize Instruction
- C-19 Employ the Team Teaching Approach
- C-20 Use Subject Matter Experts to Present Information
- C-21 Prepare Bulletin Boards and Exhibits
- C-22 Present Information with Models, Real Objects, and Flannel Boards
- C-23 Present Information with Overhead and Opaque Materials
- C-24 Present Information with Filmstrips and Slides
- C-25 Present Information with Films
- C-26 Present Information with Audio Recordings
- C-27 Present Information with Televised and Videotaped Materials
- C-28 Employ Programmed Instruction
- C-29 Present Information with the Chalkboard and Flip Chart
- C-30 Provide for Students' Learning Styles

Category D: Instructional Evaluation

- D-1 Establish Student Performance Criteria
- D-2 Assess Student Performance: Knowledge
- D-3 Assess Student Performance: Attitudes
- D-4 Assess Student Performance: Skills
- D-5 Determine Student Grades
- D-6 Evaluate Your Instructional Effectiveness

Category E: Instructional Management

- E-1 Project Instructional Resource Needs
- E-2 Manage Your Budgeting and Reporting Responsibilities
- E-3 Arrange for Improvement of Your Vocational Facilities
- E-4 Maintain a Filing System
- E-5 Provide for Student Safety
- E-6 Provide for the First Aid Needs of Students
- E-7 Assist Students in Developing Self-Discipline
- E-8 Organize the Vocational Laboratory
- E-9 Manage the Vocational Laboratory
- E-10 Combat Problems of Student Chemical Use

Category F: Guidance

- F-1 Gather Student Data Using Formal Data-Collection Techniques
- F-2 Gather Student Data Through Personal Contacts
- F-3 Use Conferences to Help Meet Student Needs
- F-4 Provide Information on Educational and Career Opportunities
- F-5 Assist Students in Applying for Employment or Further Education

Category G: School–Community Relations

- G-1 Develop a School–Community Relations Plan for Your Vocational Program
- G-2 Give Presentations to Promote Your Vocational Program
- G-3 Develop Brochures to Promote Your Vocational Program
- G-4 Prepare Displays to Promote Your Vocational Program
- G-5 Prepare News Releases and Articles Concerning Your Vocational Program
- G-6 Arrange for Television and Radio Presentations Concerning Your Vocational Program
- G-7 Conduct an Open House
- G-8 Work with Members of the Community
- G-9 Work with State and Local Educators
- G-10 Obtain Feedback about Your Vocational Program

Category H: Vocational Student Organization

- H-1 Develop a Personal Philosophy Concerning Vocational Student Organizations
- H-2 Establish a Vocational Student Organization
- H-3 Prepare Vocational Student Organization Members for Leadership Roles
- H-4 Assist Vocational Student Organization Members in Developing and Financing a Yearly Program of Activities
- H-5 Supervise Activities of the Vocational Student Organization
- H-6 Guide Participation in Vocational Student Organization Contests

Category I: Professional Role and Development

- I-1 Keep Up to Date Professionally
- I-2 Serve Your Teaching Profession
- I-3 Develop an Active Personal Philosophy of Education
- I-4 Serve the School and Community
- I-5 Obtain a Suitable Teaching Position
- I-6 Provide Laboratory Experiences for Prospective Teachers
- I-7 Plan the Student Teaching Experience
- I-8 Supervise Student Teachers

Category J: Coordination of Cooperative Education

- J-1 Establish Guidelines for Your Cooperative Vocational Program
- J-2 Manage the Attendance, Transfers, and Terminations of Co-Op Students
- J-3 Enroll Students in Your Co-Op Program
- J-4 Secure Training Stations for Your Co-Op Program
- J-5 Place Co-Op Students on the Job
- J-6 Develop the Training Ability of On-the-Job Instructors
- J-7 Coordinate On-the-Job Instruction
- J-8 Evaluate Co-Op Students' On-the-Job Performance
- J-9 Prepare for Students' Related Instruction
- J-10 Supervise an Employer–Employee Appreciation Event

Category K: Implementing Competency-Based Education (CBE)

- K-1 Prepare Yourself for CBE
- K-2 Organize the Content for a CBE Program
- K-3 Organize Your Class and Lab to Install CBE
- K-4 Provide Instructional Materials for CBE
- K-5 Manage the Daily Routines of Your CBE Program
- K-6 Guide Your Students Through the CBE Program

Category L: Serving Students with Special/Exceptional Needs

- L-1 Prepare Yourself to Serve Exceptional Students
- L-2 Identify and Diagnose Exceptional Students
- L-3 Plan Instruction for Exceptional Students
- L-4 Provide Appropriate Instructional Materials for Exceptional Students
- L-5 Modify the Learning Environment for Exceptional Students
- L-6 Promote Peer Acceptance of Exceptional Students
- L-7 Use Instructional Techniques to Meet the Needs of Exceptional Students
- L-8 Improve Your Communication Skills
- L-9 Assess the Progress of Exceptional Students
- L-10 Counsel Exceptional Students with Personal–Social Problems
- L-11 Assist Exceptional Students in Developing Career Planning Skills
- L-12 Prepare Exceptional Students for Employability
- L-13 Promote Your Vocational Program with Exceptional Students

Category M: Assisting Students in Improving Their Basic Skills

- M-1 Assist Students in Achieving Basic Reading Skills
- M-2 Assist Students in Developing Technical Reading Skills
- M-3 Assist Students in Improving Their Writing Skills
- M-4 Assist Students in Improving Their Oral Communication Skills
- M-5 Assist Students in Improving Their Math Skills
- M-6 Assist Students in Improving Their Survival Skills

RELATED PUBLICATIONS

Student Guide to Using Performance-Based Teacher Education Materials
Resource Person Guide to Using Performance-Based Teacher Education Materials
Guide to the Implementation of Performance-Based Teacher Education
Performance-Based Teacher Education: The State of the Art, General Education and Vocational Education

For information regarding availability and prices of these materials contact—AAVIM, American Association for Vocational Instructional Materials, 120 Driftmier Engineering Center, University of Georgia, Athens, Georgia 30602, (404) 542-2586

ISBN 0-89606-182-5